

**Fenbendazole (4%) Solid Formulation**

|         |                |               |                                 |
|---------|----------------|---------------|---------------------------------|
| Version | Revision Date: | SDS Number:   | Date of last issue: 30.09.2023  |
| 5.0     | 14.04.2025     | 2726697-00015 | Date of first issue: 20.04.2018 |

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name : Fenbendazole (4%) Solid Formulation

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Use of the Sub-  
stance/Mixture : Veterinary product

Recommended restrictions  
on use : Not applicable

**1.3 Details of the supplier of the safety data sheet**

Company : MSD  
20 Spartan Road  
1619 Spartan, South Africa

Telephone : +27119239300

E-mail address of person  
responsible for the SDS : EHSDATASTEWARD@msd.com

**1.4 Emergency telephone number**

+1-908-423-6000

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

|  |  |
|--|--|
| Reproductive toxicity, Category 2              | H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child. |
| Short-term (acute) aquatic hazard, Category 1  | H400: Very toxic to aquatic life.  |
| Long-term (chronic) aquatic hazard, Category 1 | H410: Very toxic to aquatic life with long lasting effects.                      |

**2.2 Label elements****Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :



Signal word : Warning

Hazard statements : H361fd Suspected of damaging fertility. Suspected of damag-

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ing the unborn child.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements :

**Prevention:**

P201 Obtain special instructions before use.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P391 Collect spillage.

**Storage:**

P405 Store locked up.

Hazardous components which must be listed on the label:

fenbendazole

**2.3 Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Dust contact with the eyes can lead to mechanical irritation.

Contact with dust can cause mechanical irritation or drying of the skin.

May form explosive dust-air mixture during processing, handling or other means.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Components**

| Chemical name | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification  | Concentration<br>(% w/w) |
|---------------|---|---|--------------------------|
| fenbendazole  | 43210-67-9<br>256-145-7                               | Repr. 2; H361fd<br>STOT RE 2; H373<br>(Liver, Stomach,<br>Nervous system,<br>Lymph nodes)<br>Aquatic Acute 1;<br>H400<br>Aquatic Chronic 1;<br>H410<br><br>M-Factor (Acute<br>aquatic toxicity):<br>100<br>M-Factor (Chronic<br>aquatic toxicity): 10 | >= 3 - < 10              |

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For explanation of abbreviations see section 16.

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**SECTION 4: First aid measures****4.1 Description of first aid measures**

- |                            |   |   |
|----------------------------|---|---|
| General advice             | : | In the case of accident or if you feel unwell, seek medical advice immediately.<br>When symptoms persist or in all cases of doubt seek medical advice.  |
| Protection of first-aiders | : | First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).   |
| If inhaled                 | : | If inhaled, remove to fresh air.<br>Get medical attention.  |
| In case of skin contact    | : | In case of contact, immediately flush skin with soap and plenty of water.<br>Remove contaminated clothing and shoes.<br>Get medical attention.<br>Wash clothing before reuse.<br>Thoroughly clean shoes before reuse. |
| In case of eye contact     | : | If in eyes, rinse well with water.<br>Get medical attention if irritation develops and persists.  |
| If swallowed               | : | If swallowed, DO NOT induce vomiting.<br>Get medical attention.<br>Rinse mouth thoroughly with water.   |

**4.2 Most important symptoms and effects, both acute and delayed**

- |       |   |   |
|-------|---|---|
| Risks | : | Contact with dust can cause mechanical irritation or drying of the skin.<br>Dust contact with the eyes can lead to mechanical irritation.<br><br>Suspected of damaging fertility. Suspected of damaging the unborn child. |
|-------|---|---|

**4.3 Indication of any immediate medical attention and special treatment needed**

- |           |   |   |
|-----------|---|---|
| Treatment | : | Treat symptomatically and supportively. |
|-----------|---|---|
- 

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

- |                              |   |  |
|------------------------------|---|--|
| Suitable extinguishing media | : | Water spray<br>Alcohol-resistant foam<br>Carbon dioxide (CO <sub>2</sub> )<br>Dry chemical |
|------------------------------|---|--|

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Unsuitable extinguishing media : None known.

**5.2 Special hazards arising from the substance or mixture**

Specific hazards during fire-fighting : Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.  
Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides  
Metal oxides  
Silicon oxides

**5.3 Advice for firefighters**

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Use personal protective equipment.  
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

**6.2 Environmental precautions**

Environmental precautions : Avoid release to the environment.  
Prevent further leakage or spillage if safe to do so.  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.

**6.3 Methods and material for containment and cleaning up**

Methods for cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.  
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).  
Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to deter-

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mine which regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

**6.4 Reference to other sections**

See sections: 7, 8, 11, 12 and 13.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

- |                         |   |  |
|-------------------------|---|--|
| Technical measures      | : | Static electricity may accumulate and ignite suspended dust causing an explosion.<br>Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.   |
| Local/Total ventilation | : | Use only with adequate ventilation.  |
| Advice on safe handling | : | Do not breathe dust.<br>Do not swallow.<br>Avoid contact with eyes.<br>Avoid prolonged or repeated contact with skin.<br>Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment<br>Minimize dust generation and accumulation.<br>Keep container closed when not in use.<br>Keep away from heat and sources of ignition.<br>Take precautionary measures against static discharges.<br>Take care to prevent spills, waste and minimize release to the environment. |
| Hygiene measures        | : | If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.<br>The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.   |

**7.2 Conditions for safe storage, including any incompatibilities**

- |   |   |  |
|---|---|--|
| Requirements for storage areas and containers | : | Keep in properly labelled containers. Store locked up. Store in accordance with the particular national regulations. |
| Advice on common storage                      | : | Do not store with the following product types:<br>Strong oxidizing agents  |

**7.3 Specific end use(s)**

- |                 |   |                   |
|-----------------|---|-------------------|
| Specific use(s) | : | No data available |
|-----------------|---|-------------------|

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**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational Exposure Limits**

| Components  | CAS-No.    | Value type (Form of exposure) | Control parameters            | Basis    |
|---|------------|-------------------------------|-------------------------------|----------|
| Starch  | 9005-25-8  | OEL-RL                        | 10 mg/m <sup>3</sup>          | ZA OEL   |
| Further information: Occupational Exposure Limits - Restricted Limits For Hazardous Chemical Agents |            |                               |                               |          |
| fenbendazole  | 43210-67-9 | TWA                           | 100 µg/m <sup>3</sup> (OEB 2) | Internal |

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006**

| Substance name    | End Use   | Exposure routes | Potential health effects   | Value                  |
|-------------------|-----------|-----------------|----------------------------|------------------------|
| Calcium carbonate | Workers   | Inhalation      | Long-term systemic effects | 6,36 mg/m <sup>3</sup> |
|                   | Consumers | Ingestion       | Acute systemic effects     | 6,1 mg/kg bw/day       |
|                   | Consumers | Inhalation      | Long-term systemic effects | 1,06 mg/m <sup>3</sup> |
|                   | Consumers | Ingestion       | Long-term systemic effects | 6,1 mg/kg bw/day       |

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006**

| Substance name    | Environmental Compartment | Value       |
|-------------------|---------------------------|-------------|
| fenbendazole      |                           | 0,0001 mg/l |
| Calcium carbonate | Sewage treatment plant    | 100 mg/l    |

**8.2 Exposure controls****Engineering measures**

Use feasible engineering controls to minimize exposure to compound.  
 All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.

**Personal protective equipment**

- Eye/face protection : Wear safety glasses with side shields or goggles.  
 If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.  
 Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.
- Hand protection :  
 Material : Chemical-resistant gloves
- Skin and body protection : Work uniform or laboratory coat.
- Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.
- Filter type : Particulates type (P)

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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

|  |   |
|--|---|
| Appearance                                       | : powder  |
| Colour   | : white   |
| Odour  | : odourless   |
| Odour Threshold                                  | : No data available   |
| pH   | : 6 - 8   |
| Melting point/freezing point                     | : No data available   |
| Initial boiling point and boiling range          | : Not applicable  |
| Flash point                                      | : Not applicable  |
| Evaporation rate                                 | : Not applicable  |
| Flammability (solid, gas)                        | : May form explosive dust-air mixture during processing, handling or other means. |
| Flammability (liquids)                           | : Not applicable  |
| Upper explosion limit / Upper flammability limit | : No data available   |
| Lower explosion limit / Lower flammability limit | : No data available   |
| Vapour pressure                                  | : No data available   |
| Relative vapour density                          | : Not applicable  |
| Relative density                                 | : No data available   |
| Density  | : No data available   |
| Solubility(ies)                                  |   |
| Water solubility                                 | : insoluble   |
| Solubility in other solvents                     | : No data available   |
| Partition coefficient: n-octanol/water           | : Not applicable  |
| Auto-ignition temperature                        | : No data available   |
| Decomposition temperature                        | : No data available   |
| Viscosity  |   |
| Viscosity, kinematic                             | : Not applicable  |
| Explosive properties                             | : Not explosive   |
| Oxidizing properties                             | : The substance or mixture is not classified as oxidizing.                        |

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**9.2 Other information**

|                  |   |                   |
|------------------|---|-------------------|
| Molecular weight | : | No data available |
| Particle size    | : | No data available |
| Self-ignition    | : | No data available |

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**SECTION 10: Stability and reactivity****10.1 Reactivity**

Not classified as a reactivity hazard.

**10.2 Chemical stability**

Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

|                     |   |  |
|---------------------|---|--|
| Hazardous reactions | : | May form explosive dust-air mixture during processing, handling or other means.<br>Can react with strong oxidizing agents. |
|---------------------|---|--|

**10.4 Conditions to avoid**

|                     |   |   |
|---------------------|---|---|
| Conditions to avoid | : | Heat, flames and sparks.<br>Avoid dust formation. |
|---------------------|---|---|

**10.5 Incompatible materials**

|                    |   |                  |
|--------------------|---|------------------|
| Materials to avoid | : | Oxidizing agents |
|--------------------|---|------------------|

**10.6 Hazardous decomposition products**

No hazardous decomposition products are known.

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**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

|  |   |  |
|--|---|--|
| Information on likely routes of exposure | : | Inhalation<br>Skin contact<br>Ingestion<br>Eye contact |
|--|---|--|

**Acute toxicity**

|| Not classified based on available information.

**Components:****fenbendazole:**

|                     |   |  |
|---------------------|---|--|
| Acute oral toxicity | : | LD50 (Rat): > 10.000 mg/kg<br>LD50 (Mouse): > 10.000 mg/kg |
|---------------------|---|--|

**Skin corrosion/irritation**

|| Not classified based on available information.



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**Components:****fenbendazole:**

|         |                      |
|---------|----------------------|
| Species | : Rabbit             |
| Result  | : No skin irritation |

**Serious eye damage/eye irritation**

|| Not classified based on available information.

**Components:****fenbendazole:**

|         |                     |
|---------|---------------------|
| Species | : Rabbit            |
| Result  | : No eye irritation |

**Respiratory or skin sensitisation****Skin sensitisation**

|| Not classified based on available information.

**Respiratory sensitisation**

|| Not classified based on available information.

**Germ cell mutagenicity**

|| Not classified based on available information.

**Components:****fenbendazole:**

|                       |   |
|-----------------------|---|
| Genotoxicity in vitro | : Test Type: Bacterial reverse mutation assay (AMES)<br>Result: negative  |
|                       | Test Type: DNA Repair<br>Result: negative   |
|                       | Test Type: Chromosomal aberration<br>Result: negative   |
|                       | Test Type: in vitro assay<br>Test system: mouse lymphoma cells<br>Metabolic activation: Metabolic activation<br>Result: equivocal |

**Carcinogenicity**

|| Not classified based on available information.

**Components:****fenbendazole:**

|                   |                         |
|-------------------|-------------------------|
| Species           | : Mouse                 |
| Application Route | : oral (feed)           |
| Exposure time     | : 2 Years               |
| NOAEL             | : 405 mg/kg body weight |
| Result            | : negative              |

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|                   |                       |
|-------------------|-----------------------|
| Species           | : Rat                 |
| Application Route | : Oral                |
| Exposure time     | : 2 Years             |
| NOAEL             | : 5 mg/kg body weight |
| Result            | : negative            |
| Target Organs     | : Lymph nodes, Liver  |

**Reproductive toxicity**

|| Suspected of damaging fertility. Suspected of damaging the unborn child.

**Components:****fenbendazole:**

|                                    |   |
|------------------------------------|---|
| Effects on fertility               | : Test Type: Three-generation reproduction toxicity study<br>Species: Rat<br>Application Route: oral (feed)<br>General Toxicity - Parent: NOAEL: 15 mg/kg body weight<br>Fertility: LOAEL: 45 mg/kg body weight<br>Result: Effects on fertility   |
| Effects on foetal development      | : Test Type: Development<br>Species: Dog, female<br>Application Route: Oral<br>Developmental Toxicity: LOAEL: 100 mg/kg body weight<br>Result: Embryotoxic effects and adverse effects on the offspring were detected., No teratogenic effects<br><br>Test Type: Embryo-foetal development<br>Species: Rabbit<br>Application Route: Oral<br>Developmental Toxicity: NOAEL: 25 mg/kg body weight<br>Result: Fetotoxicity<br><br>Test Type: Embryo-foetal development<br>Species: Rabbit<br>Application Route: Oral<br>Developmental Toxicity: LOAEL: 63 mg/kg body weight<br><br>Test Type: Embryo-foetal development<br>Species: Rat<br>Application Route: Oral<br>Developmental Toxicity: NOAEL: 120 mg/kg body weight<br>Result: No effects on foetal development |
| Reproductive toxicity - Assessment | : Some evidence of adverse effects on sexual function and fertility, based on animal experiments., Some evidence of adverse effects on development, based on animal experiments.  |

**STOT - single exposure**

|| Not classified based on available information.

**STOT - repeated exposure**

|| Not classified based on available information.

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**Components:****fenbendazole:**

|                 |  |
|-----------------|--|
| Exposure routes | : Ingestion  |
| Target Organs   | : Liver, Stomach, Nervous system, Lymph nodes                        |
| Assessment      | : May cause damage to organs through prolonged or repeated exposure. |

**Repeated dose toxicity****Components:****fenbendazole:**

|                   |                 |
|-------------------|-----------------|
| Species           | : Rat           |
| LOAEL             | : 500 mg/kg     |
| Application Route | : Oral          |
| Exposure time     | : 2 Weeks       |
| Target Organs     | : Kidney, Liver |

|                   |  |
|-------------------|--|
| Species           | : Rat  |
| NOAEL             | : > 2.500 mg/kg                                |
| Application Route | : Oral   |
| Exposure time     | : 30 Days                                      |
| Remarks           | : No significant adverse effects were reported |

|                   |                          |
|-------------------|--------------------------|
| Species           | : Rat                    |
| LOAEL             | : 1.600 mg/kg            |
| Application Route | : Oral                   |
| Exposure time     | : 90 Days                |
| Target Organs     | : Central nervous system |
| Symptoms          | : Tremors                |

|               |  |
|---------------|--|
| Species       | : Dog                                  |
| NOAEL         | : 4 mg/kg                              |
| LOAEL         | : 8 mg/kg                              |
| Exposure time | : 6 Months                             |
| Target Organs | : Stomach, Nervous system, Lymph nodes |

**Aspiration toxicity**

Not classified based on available information.

**Components:****fenbendazole:**

No aspiration toxicity classification

**Experience with human exposure****Components:****fenbendazole:**

|           |  |
|-----------|--|
| Ingestion | : Symptoms: Rapid respiration, Salivation, anorexia, Diarrhoea |
|-----------|--|

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**SECTION 12: Ecological information****12.1 Toxicity****Components:****fenbendazole:**

|  |   |  |
|--|---|--|
| Toxicity to fish   | : | LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,009 mg/l<br>Exposure time: 21 d                                       |
| Toxicity to daphnia and other aquatic invertebrates                    | : | EC50 (Daphnia magna (Water flea)): 0,0088 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202               |
| M-Factor (Acute aquatic toxicity)                                      | : | 100  |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC: 0,00113 mg/l<br>Exposure time: 21 Days<br>Species: Daphnia magna (Water flea)<br>Method: OECD Test Guideline 211 |
| M-Factor (Chronic aquatic toxicity)                                    | : | 10   |

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential****Components:****fenbendazole:**

|  |   |               |
|--|---|---------------|
| Partition coefficient: n-octanol/water | : | log Pow: 3,32 |
|--|---|---------------|

**12.4 Mobility in soil****Components:****fenbendazole:**

|   |   |  |
|---|---|--|
| Distribution among environmental compartments | : | log Koc: 3,8 - 4,7<br>Method: FDA 3.08 |
|---|---|--|

**12.5 Results of PBT and vPvB assessment****Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects****Product:**

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Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Product : Dispose of in accordance with local regulations. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities. Do not dispose of waste into sewer.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

**SECTION 14: Transport information****14.1 UN number**

ADN : UN 3077

ADR : UN 3077

RID : UN 3077

IMDG : UN 3077

IATA : UN 3077

**14.2 UN proper shipping name**

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (fenbendazole)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (fenbendazole)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (fenbendazole)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (fenbendazole)

IATA : Environmentally hazardous substance, solid, n.o.s. (fenbendazole)

**14.3 Transport hazard class(es)**

|     | Class | Subsidiary risks |
|-----|-------|------------------|
| ADN | : 9   |                  |

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|             |   |   |
|-------------|---|---|
| <b>ADR</b>  | : | 9 |
| <b>RID</b>  | : | 9 |
| <b>IMDG</b> | : | 9 |
| <b>IATA</b> | : | 9 |

**14.4 Packing group**

**ADN**

|                              |   |     |
|------------------------------|---|-----|
| Packing group                | : | III |
| Classification Code          | : | M7  |
| Hazard Identification Number | : | 90  |
| Labels                       | : | 9   |

**ADR**

|                              |   |     |
|------------------------------|---|-----|
| Packing group                | : | III |
| Classification Code          | : | M7  |
| Hazard Identification Number | : | 90  |
| Labels                       | : | 9   |
| Tunnel restriction code      | : | (-) |

**RID**

|                              |   |     |
|------------------------------|---|-----|
| Packing group                | : | III |
| Classification Code          | : | M7  |
| Hazard Identification Number | : | 90  |
| Labels                       | : | 9   |

**IMDG**

|               |   |          |
|---------------|---|----------|
| Packing group | : | III      |
| Labels        | : | 9        |
| EmS Code      | : | F-A, S-F |

**IATA (Cargo)**

|                                      |   |               |
|--------------------------------------|---|---------------|
| Packing instruction (cargo aircraft) | : | 956           |
| Packing instruction (LQ)             | : | Y956          |
| Packing group                        | : | III           |
| Labels                               | : | Miscellaneous |

**IATA (Passenger)**

|  |   |               |
|--|---|---------------|
| Packing instruction (passenger aircraft) | : | 956           |
| Packing instruction (LQ)                 | : | Y956          |
| Packing group                            | : | III           |
| Labels                                   | : | Miscellaneous |

**14.5 Environmental hazards**

**ADN**

|                           |   |     |
|---------------------------|---|-----|
| Environmentally hazardous | : | yes |
|---------------------------|---|-----|

**ADR**

|                           |   |     |
|---------------------------|---|-----|
| Environmentally hazardous | : | yes |
|---------------------------|---|-----|

**RID**

|                           |   |     |
|---------------------------|---|-----|
| Environmentally hazardous | : | yes |
|---------------------------|---|-----|

**IMDG**

|                  |   |     |
|------------------|---|-----|
| Marine pollutant | : | yes |
|------------------|---|-----|

**Fenbendazole (4%) Solid Formulation**

|         |                |               |                                 |
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**IATA (Passenger)**

Environmentally hazardous : yes

**IATA (Cargo)**

Environmentally hazardous : yes

**14.6 Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Remarks : Not applicable for product as supplied.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****The components of this product are reported in the following inventories:**

DSL : not determined

AICS : not determined

IECSC : not determined

**15.2 Chemical safety assessment**

A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

Other information : Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

**Full text of H-Statements**

H361fd : Suspected of damaging fertility. Suspected of damaging the unborn child.

H373 : May cause damage to organs through prolonged or repeated exposure if swallowed.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.

**Full text of other abbreviations**

Aquatic Acute : Short-term (acute) aquatic hazard

Aquatic Chronic : Long-term (chronic) aquatic hazard

Repr. : Reproductive toxicity

STOT RE : Specific target organ toxicity - repeated exposure

ZA OEL : South Africa. The Regulations for Hazardous Chemical Agents, Occupational Exposure Limits

ZA OEL / OEL-RL : Occupational Exposure Limit Restricted limit - 8- hour exposure or equivalent (12 hour shifts)

**Fenbendazole (4%) Solid Formulation**

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ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

**Classification of the mixture:**

|                   |        |
|-------------------|--------|
| Repr. 2           | H361fd |
| Aquatic Acute 1   | H400   |
| Aquatic Chronic 1 | H410   |

**Classification procedure:**

|                    |
|--------------------|
| Calculation method |
| Calculation method |
| Calculation method |

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their



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intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

ZA / EN